

REMARKS

This is a full and timely response to the non-final Office Action mailed September 13, 2007. Applicants have amended claim 8. Claims 1, 2, and 8 – 26 remain pending. Applicants respectfully request that the application and all pending claims be reconsidered and allowed.

I. Rejection of Claims 1 and 15 Under 35 U.S.C. 112, First Paragraph

The Office Action rejects claims 1 and 15 under 35 U.S.C. 112, first paragraph as allegedly failing to comply with the written description requirement. The Office Action argues that the claimed subject matter of “an optical fiber mounted on said substrate” lacks support in the specification. The Office Action argues that the amended limitation of the optical fiber being mounted on the substrate is considered new matter. Applicants respectfully submit that this rejection is improper and should be withdrawn.

It appears that the Office Action failed to consider Applicants’ remarks filed July 23, 2007, accompanying the amendment of claims 1 and 15. Applicants noted that the amended mounting arrangement is shown in the embodiments of FIGS. 1 and 2, and further supported in the application at page 4, lines 7 – 10. Applicants respectfully submit that this is more than adequate support for the amended subject matter, and requests that the entire specification be carefully reviewed. The specification states that “In both arrangements shown in figures 1 and 2, the various elements shown are mounted in a generally hybrid fashion over a substrate or support 10 typically comprised of a so-called silicon optical bench or SiOB.” This clearly supports the recitation of “an optical fiber mounted on said substrate” because the optical fiber is one of the elements shown in FIGS. 1 and 2 and described as being mounted.

While this is sufficient to support the amended limitation and, therefore, traverse the rejection of claims 1 and 15, Applicants trust that a further review of the specification will uncover the following additional portions of the specification, which clearly support the recitation of an input optical fiber mounted on the substrate. At page 4, lines 31 – 32, the specification further clarifies that the illustrated components may be mounted onto the substrate 10. At page 6, lines 10 – 13, the specification discloses that, in one of a number of possible embodiments, the optical fiber 12 may be locked in a corresponding V-groove 12a provided in the support. In a further embodiment, at page 6, lines 23 – 23, the specification discloses that optical fiber 12 is locked in V-groove 12a and is coupled with the short segment of waveguide 22, which is manufactured in the same planar layers of the collecting waveguide 20. Furthermore, at page 6, lines 20 – 22, the specification notes that the waveguides 20 and 22 may be produced directly on the substrate 10 by resorting to standard planar optics techniques.

For each of these reasons, Applicants respectfully submit that claims 1 and 15 comply with 35 U.S.C. 112, first paragraph. Accordingly, Applicants request that the rejection be withdrawn and the claims allowed.

II. Rejection Under 35 U.S.C. 102

The Office Action rejects claims 1, 2, 8 – 18 and 21 – 26 under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,481,629 (“the ‘629 Patent”). Applicants respectfully submit that the ‘629 Patent does not disclose, teach, or suggest all features recited in the claims and, therefore, for at least this reason the rejection should be withdrawn and the claims allowed.

Independent claim 1 is directed to a mounting arrangement for at least one optical component in a planar lightwave circuit. The mounting arrangement recites an input optical fiber, an output optical waveguide, an optical component, and a further optical waveguide. The Office Action attempts to correlate these recited features with allegedly corresponding features in the '629 Patent. As explained below in more detail, Applicant respectfully submits that the Office Action misinterprets the teachings of the '629 Patent and incorrectly applies certain features of the '629 Patent to allegedly corresponding claimed features.

In the mounting arrangement recited in independent claim 1, optical radiation is transmitted from the input optical fiber to the output optical waveguide. The further optical waveguide is interposed between the input optical fiber and the optical component, and the optical component is interposed between the further optical waveguide and the output optical waveguide. In this manner, optical radiation is transmitted in the mounting arrangement through the components in the following order: from the input optical fiber to the further optical waveguide to the optical component to the output waveguide.

The '629 Patent does not disclose, teach, or suggest this combination of features. In an effort to further clarify and clearly demonstrate the improper application of the arrangement disclosed in the '629 Patent to the claimed features (and to avoid further delay over this improper rejection), Applicants reference FIG. 2 of Applicants' specification and FIG. 5 from the '629 Patent (which the Office Action argues anticipates the claimed mounting arrangement). Applicants reference the embodiment of FIG. 2 merely for purposes of demonstrating the manner in which optical radiation is transmitted through the components of the claimed mounting arrangement, and the spatial relationship between the claimed components. Independent claim 1 is not limited to the illustrated embodiment.

Referring to FIG. 2, in the mounting arrangement recited in independent claim 1, optical radiation is transmitted through the components in the following order: from the input optical fiber (12) to the further optical waveguide (22) to the optical component (16) to the output waveguide (20). The Office Action argues that the claimed input optical fiber (12) corresponds to the optical fiber (9) of the '629 Patent, and the claimed output waveguide (20) corresponds to the semiconductor laser (8) of the '629 Patent.

Applicants respectfully submit that the semiconductor laser 8 disclosed in the '629 Patent is not an output waveguide. Rather, the '629 Patent clearly discloses that the semiconductor laser 8 is an input device constituting a light source for transmitting radiation to optical member (12). This is a fundamental difference between the claimed mounting arrangement and the device disclosed in the ' 629 Patent. In the claimed mounting arrangement, the optical radiation is transmitted from the input optical fiber (12) to the output waveguide (20). Therefore, the mounting arrangement supports an optical source upstream from the input optical fiber, not downstream as disclosed in the '629 Patent.

For at least this reason, Applicants respectfully submit that the rejection of independent claim 1 as allegedly being anticipated by the '629 Patent is improper and, therefore, should be withdrawn. To the extent that independent claim 15 also recites a mounting arrangement comprising an input optical fiber, an optical component, and an output waveguide in which optical radiation is transmitted as described above, the rejection of independent claim 15 is also improper. The rejection of dependent claims 2 and 8 – 14 (which depend from independent claim 1) and dependent claims 16 - 26 (which depend from independent claim 15) should also be withdrawn and the claims allowed for at least the reason that these claims include all of the

elements of the corresponding base claim. Accordingly Applicants respectfully request that the rejection of claims 1, 2 and 8 - 26 be withdrawn and the claims allowed.

Applicants respectfully submit that dependent claim 8, as amended, is also patentable over the '629 Patent for at least the additional reason that it recites the feature of the respective end surfaces of the output optical waveguide and the further optical waveguide being laterally offset. While the '629 Patent appears to disclose a *vertical offset* relative to the surface of the substrate between lasers 4 and 8, Applicants assert that the offset is not a *lateral offset* to a perpendicular to the input-to-output propagation path. For at least additional reason, Applicants submit that dependent claim 8 is in condition for allowance.

CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the pending claims 1, 2 and 8 - 26 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are requested. If in the opinion of the Examiner a telephonic conference would expedite examination of this application, the Examiner is invited to call the undersigned attorney at 813-382-9345.

Respectfully submitted,

/Adam E. Crall/

Adam E. Crall, Reg. No. 46,646

SMITH FROHWEIN TEMPEL GREENLEE BLAHA LLC
Two Ravinia Drive, Suite 700
Atlanta, Georgia 30346
404-815-9300

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including any items indicated as attached or included, is being electronically submitted to the United States Patent & Trademark Office via the Electronic Filing System on the date indicated below.

Date: December 13, 2007

/Adam E. Crall/

Signature